EFFECT OF CONCENTRATION AND IMMERSION TIME IN SUSPENSION OF SOURSOP SEED (Annona muricata Linn) FLOUR AGAINST MORTALITY OF MALE Rhipicephalus sanguineus

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ABSTRACT

This study was to prove that seed of soursop (Annona muricata Linn) can be used as bioacariside to control male Rhipicephalus sanguineus. R. sanguineus is a blood-meal tick was found in dogs around the world. Male R. sanguineus was found more than female, also can blood-meal more than once and move from one host to another host, which make it also as an intrastadial vectors. Seed of soursop contains annonaceous acetogenin can be use as insecticide against worm, fly, and ticks on cows. This study use three concentration of suspension of soursop seed flour, which are 1, 5, and 10% respectively, and immersion time in 5, 10, and 15 minutes respectively. Every treatment was use 10 male-ticks of Rhipicephalus sanguineus and three time repetition for each treatment. The soursop seed flour was added by 1 gram CMC as suspensator. The result shows that concentration 5% of suspension of soursop seed flour in 5, 10, and 15 minutes of immersion time give the effect of mortality are 16.67, 10, and 6.67% respectively. The mode of entry of annonaceous acetogenins was contact poison and digestive poison, which the target is mitocondria cell that disturb the energy production. There is possibility of tick resistant against suspension of soursop seed flour.

Keywords: Rhipicephalus sanguineus, soursop seed, immersion